iOmniscient



iQ-Smart Bridges

Safety, traffic flow and response on critical links

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Critical Connections

Bridges are main arteries for road and rail

Protect

Bridges must be protected against sabotage.

Understand

Identify and address the cause of traffic disruption quickly.

Prevent

Ensure the bridge is not used as a platform for suicide.



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Prevent Suicide

Detect behavior that signals immediate risk - ACT BEFORE A JUMP

Loitering

Immediately alert authorities when a person is loitering on the bridge, as this may indicate a risk of suicide.

Railing or Edge

Detect a person climbing onto the railing or edge.

Jump

Detect if a person jumps off the bridge.



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Protect Structural Weak Points

Bridge vulnerabilities require focused detection - Detect attempted sabotage



Structural Vulnerabilities

Every bridge has structural vulnerabilities.

Failure Points

iOmniscient engineers understand potential points of failure.

Attack Detection

Systems can detect attempts to attack these points of weakness.

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Detect Traffic Incidents

One event can block neighboring areas - Clear disruptions quickly

Accidents & Debris

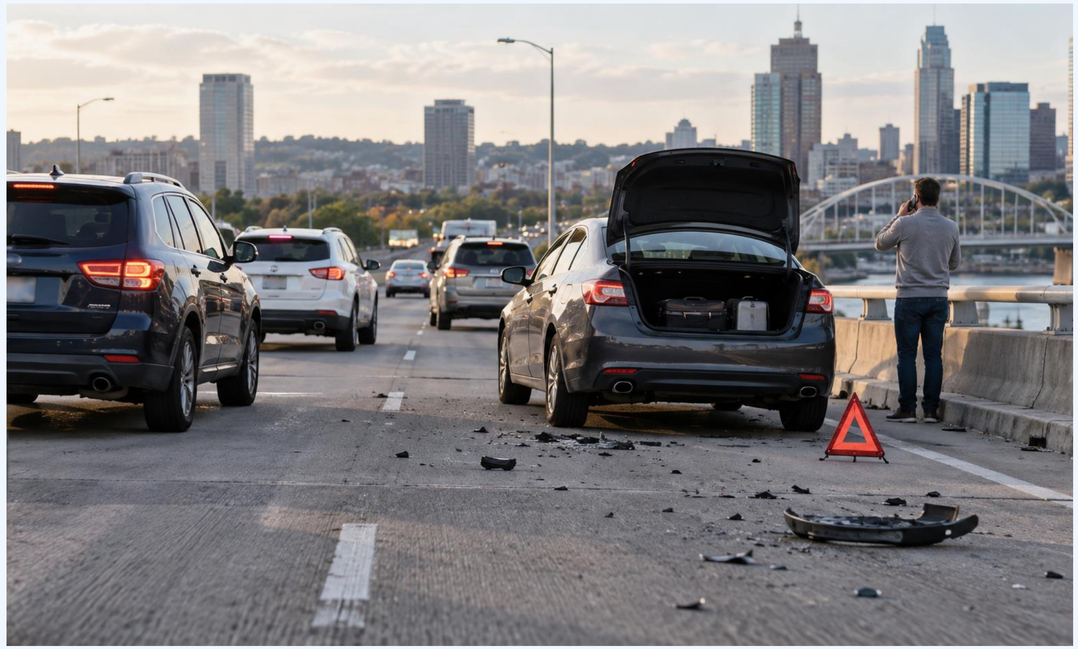
Detect accidents and fallen debris on the road.

Road Hazards

Detect hazards such as pedestrians or bicycles.

Alert

Alert the appropriate authorities to minimize traffic disruption.



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Manage Flow and Pollution

Use bridge conditions to trigger an operational response - RESPOND TO CONGESTION



TRAFFIC FLOW

When bridge congestion builds, autonomously adjust feeder-road traffic lights to alleviate it.

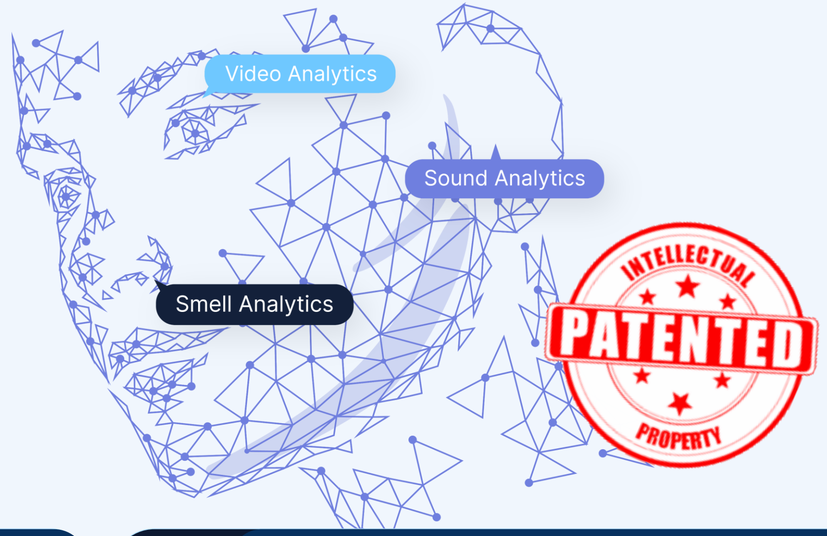
ENVIRONMENT

Understand pollution levels and make authorities aware of sudden changes.

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Responsive Infrastructure

Advanced Multi-Sensory Analytics – Video, Sound, Smell



01 COST EFFECTIVE

Uses existing
CCTV infrastructure

No GPUs
16×↓ carbon footprint

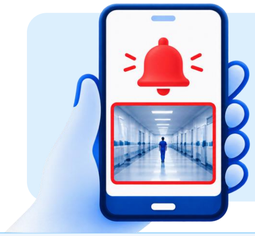
Fewer cameras
Lower-resolution cameras

90% less
Storage and network bandwidth

02 AUTONOMOUS RESPONSE

Detect › **Find** › **Respond**

When an event occurs,
the system can find the appropriate responder,
including external agencies such as the fire brigade and police,
and tell them where to go and what to do.



They do not require a large control room environment – **a smart phone becomes the control room.**

03 PRIVACY PROTECTION

All systems are privacy protected.

All systems protect privacy so that operators cannot identify individuals,
while the system can still detect safety issues and raise alerts.

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Experience and Scale

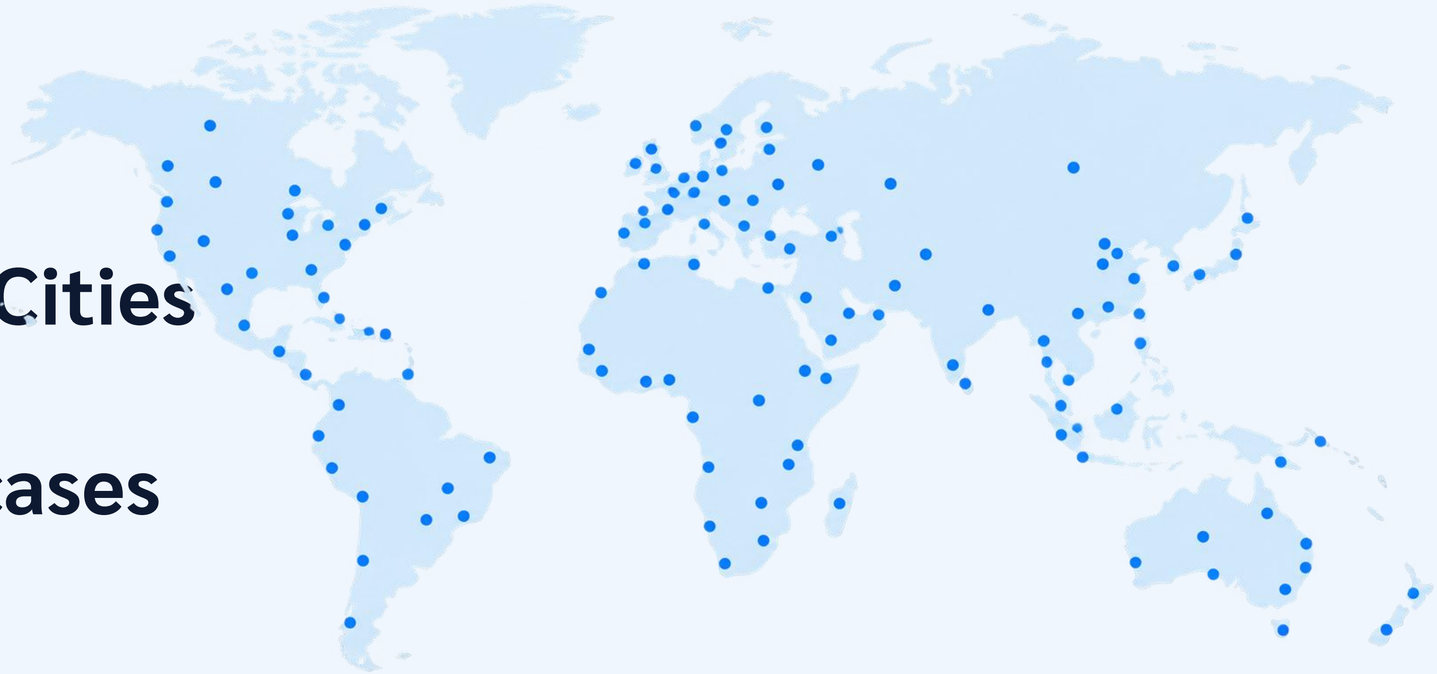
A proven range of implementations

70+ Countries

Used by 75 Smart Cities

300+ Proven use cases

20x Cheaper



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About iOmniscient

Partnership

All iOmniscient Products run exclusively on Intel based computing hardware using OpenVINO™

- The use of Advanced AI technology that goes beyond Deep Learning enables iOmniscient to run its systems without the need for 3rd party GPUs.
- This reduces the power required by a factor of 16 – resulting in a 16-fold reduction in the carbon footprint.
- This is just one part of a multi-faceted program to help customers to implement Sustainable Systems.

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About iOmniscient

- iOmniscient is an **Ethical AI** company.
- It offers **multi-sensory (video-sound-smell) Artificial Intelligence based analytics for Autonomous Systems.**
- It focuses on ensuring **Outcomes** for its customers.
- With **over 2 decades of experience,** iOmniscient systems have been demonstrated to be **robust,** operating with high accuracy and few false alarms specially in **complex and crowded** environments.
- By design, its systems **reduce the cost of infrastructure** required:
  - they can use existing cameras
  - they require fewer cameras with lower resolution
  - they require 90% less storage and network bandwidth
  - they are computing light and require no GPUs
  - they allow autonomous operations requiring fewer personnel to operate
- iOmniscient has implemented projects in **70 countries.**
- With over **70 international patents** many of its capabilities are unique and unavailable from any other source.





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